DETAILED ACTION

1.   This office action is responsive to communications filed on 12/08/2005

2.   Claims 1- 10 are pending and have been examined.

Information Disclosure Statement

3.   The information disclosure statement (I.D.S) filed on 06/05/2006, 09/29/2006, 08/30/2007, 08/11/2008 and 03/05/2009 are considered.

Drawings

4.   Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

5.   35 U.S.C. 112, first paragraph, requires the specification to be written in "full, clear, concise, and exact terms." The specification is replete with terms which are not clear, concise and exact. The specification should be revised carefully in order to comply with 35 U.S.C. 112, first paragraph. Examples of some unclear, inexact or verbose terms used in the specification are: "x-interface", "f-interface" and "g-interface".

Claim Objections

6.   While there is no set statutory form for claims, the present Office practice is to

insist that each claim must be the object of a sentence starting with "I (or we) claim,"

"The invention claimed is" (or the equivalent).

        Appropriate correction is required.

Claim Rejections - 35 USC § 112

7.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

8.   Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention. The claims are generally narrative and indefinite,

failing to conform with current U.S. practice. They appear to be a literal translation into

English from a foreign document and are replete with grammatical and idiomatic errors.

9.   The terms "OSF module" and f-interface" recited in the claims are the relative

terms that render the claims indefinite. The specification does not provide a standard for

ascertaining the requisite degree, and one of ordinary skill in the art would not be

reasonably appraised of the scope of the invention.

10.   Claim 1 recites the limitation "the provider network management system", "the

customer network management system" and "the OSF functional module". There is

insufficient antecedent basis for this limitation in the claim. For the purpose of

examination, the examiner treats these terms as "a provider network management

system ", "a customer network management system" and "an OSF functional module"

11.   Claim 7 recites the limitation "the provider NMS", "the customer NMS" and "the

OSF module". There is insufficient antecedent basis for this limitation in the claim. For

the purpose of examination, the examiner treats these terms as "a provider NMS", "a

customer NMS" and "an OSF module".

Claim Rejections - 35 USC § 101

12.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

13.   Claims 1-6 are rejected under 35 U.S.C. 101 because the claimed invention is

directed to non-statutory subject matter. With regard to claim 1, the instant claim is

directed toward a network management system with functional modules, wherein all of

these modules can be implemented in software alone. Claim directed toward software

alone is per se nonstatutory. Claims 2-6 are rejected under the same rationale.

       Claim 7 is ejected under 35 U.S.C. 101 as not falling within one of the four

statutory categories of invention. While the claims recite a series of steps or acts to be

performed, a statutory "process" under 35 U.S.C. 101 must (1) be tied to particular

machine, **or** (2) transform underlying subject matter (such as an article or material) to a

different state or thing. See page 10 of *In Re Bilski 88 USPQ2d 1385*. The claimed

method includes a step of *connected* that, in view of the broadest reasonable

interpretation of the claim(s) as required by MPEP 2111, the claims could be completely

performed mentally and without a machine.

Claim Rejections - 35 USC § 102

14.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by
> another filed in the United States before the invention by the applicant for patent or (2) a patent
> granted on an application for patent by another filed in the United States before the invention by the
> applicant for patent, except that an international application filed under the treaty defined in section
> 351(a) shall have the effects for purposes of this subsection of an application filed in the United States
> only if the international application designated the United States and was published under Article 21(2)
> of such treaty in the English language.

15.   Claims 1-10 are rejected under 35 U.S.C. 102(e) as being anticipated by **Devine**

et al. (PGPUB: US 2003/0191970 A1).

        With respect to **claim 1,** Devine teaches a Network Management System (NMS)

of Virtual Private Network (VPN), comprising the provider network management system

and the customer network management system, characterized in that: there is a

customer network management agent functional module between the provider NMS and

the customer NMS (Devine: fig. 4-5, page 4, paragraphs 57-58); said module is

connected with the OSF functional module in the provider NMS via f-interface, so as to

implement the customer network management agent (Devine: fig. 4-5, page 4,

paragraphs 57-58 and page 5, paragraphs 68-72).

        With respect to **claim 2,** Devine teaches the system as in claim 1, characterized

in that: the customer NMS employs an architecture constituted by the following three

layers (Devine: fig. 4): a client layer running in a browser (Devine: fig. 4, page 4,

paragraphs 57-58, noted the customer layer), a centralized controller layer running on a

Web server in the provider's website (Devine: fig. 4, page 5, paragraphs 68-70, noted

the DMZ layer), and a business layer comprising the customer network management

agent functional module (Devine: fig. 4, page 5, paragraphs 71-73, noted the MCI mid-

range servers); the client layer being connected with the centralized controller layer

through a network (Devine: fig. 4, page 4, paragraphs 57-58); the centralized controller

layer being connected with the business layer through the network or dedicated line

(Devine: fig. 4, page 5, paragraphs 68-73).

  With respect to **claim 3,** Devine teaches the system as in claim 2, characterized

in that: said client layer comprises a browser and a CNM interface running on the

browser, which is oriented to a customer to provide a CNM Graphic User Interface

(GUI) (Devine: fig. 2-3, page 4, paragraphs 56-57 and 61-62, noted the Client GUI).

  With respect to **claim 4,** Devine teaches the system as in claim 2, characterized

in that: said centralized controller layer comprises request controller, message codec,

and message transceiver modules, which running on the Web server of the provider's

website (Devine: fig. 4, page 8, paragraphs 98-99).

  With respect to **claim 5,** Devine teaches the system as in claim 2, characterized

in that: said business layer comprises a CNM agent in the provider NMS (Devine: fig. 4,

page 5, paragraphs 68-70 and page 8, paragraphs 98-99).

  With respect to **claim 6,** Devine teaches the system as in claim 2, characterized

in that: said client layer accesses said network through the customer's network

equipment (Devine: fig. 8, page 8, paragraph 97); said centralized controller layer

accesses said network through the provider's network equipment; said network is

Internet or another private network (Devine: fig. 4, page 5, paragraphs 68-70 and page 8, paragraphs 98-99).

With respect to **claim 7,** Devine teaches a method for implementing a Network Management System (NMS) of Virtual Private Network (VPN), which comprises the provider NMS and the customer NMS, characterized in that: the customer NMS (Devine: fig. 4-5, page 4, paragraphs 57-58) is connected with the OSF module in the provider NMS via f-interface, so as to implement customer network management agent (Devine: fig. 4-5, page 4, paragraphs 57-58 and page 5, paragraphs 68-72).

With respect to **claim 8,** Devine teaches the method as in claim 7, characterized in that: said method comprises the following steps:

a. the customer submitting a CNM function request (Devine: page 5, paragraphs 68-70 and page 7, paragraph 97);

b. decoding the CNM function request and encapsulating it into a NMS message (Devine: page 8, paragraphs 98-99);

c. identifying the type of the CNM function in the NMS message, determining the associated NMS functional module, and using f-interface to send the NMS message to the corresponding functional module in the NMS for processing (Devine: page 5, paragraphs 68-70 and page 8, paragraph 99);

d. encapsulating the processing result returned from the corresponding functional module in the NMS into a NMS response message (Devine: page 11, paragraph 125);

e. generating a display page according to the NMS response message (Devine: page 6, paragraph 74 and page 11, paragraph 125);

f. displaying the page (Devine: page 5, paragraphs 67-68 and page 6,
paragraphs 74-79).

With respect to **claim 9,** Devine teaches the method as in claim 8, characterized
in that: in step a, the management function request is submitted in the client browser
through the following steps:

a1. judging whether the customer has logged in (Devine: page 4, paragraph 60
and page 11, paragraph 125); if the customer has logged in, going to step a3; otherwise

a2. entering the CNM customer information and generating a CNM function
request (Devine: page 11, paragraph 125), and going to step a4;

a3. choosing from the CNM functions and generating a CNM function request
(Devine: page 5, paragraph 68, page 8, paragraphs 97-99 and page 11 paragraph 125);

a4. sending the CNM function request (Devine: page 8, paragraphs 97-99 and
page 11, paragraph 125).

With respect to **claim 10,** Devine teaches the method as in claim 8,
characterized in that: in above step b, the process in which the CNM function request is
decoded and encapsulated into a NMS message comprises the following steps:

b1. decoding the received CNM function request (Devine: page 8, paragraphs
98-99 and page 15, paragraph 160);

b2. judging whether the data in the request is complete (Devine: page 8,
paragraphs 98-99); if it is complete, going to step b4; otherwise

b3. generating an error page and sending it back to the client browser for display, and then terminating the process (Devine: page 8, paragraphs 98-99 & 102, and page 15, paragraphs 160-165 & 168);

b4. encapsulating the request into a NMS message(Devine: page 8, paragraphs 98-99 and page 15, paragraph 160).

Conclusion

16.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Combar et al. (Patent no.: US 6,470,386 B1) discloses an integrated proxy interface for web based telecommunications management tools.

- Munguia et al. (PGPUB: US 2001/0052013 A1) discloses telecommunications management tools.

- Azarmi et al. (Patent no.: US 5,905,715) discloses network management system for communications networks.

17.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to LIN LIU whose telephone number is (571)270-1447. The examiner can normally be reached on Monday - Friday, 7:30am - 5:00pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Srivastava Vivek can be reached on (571) 272-7304. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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